



NEWSLETTER - Korean Transportation Association in America

Vol. 28, No. 1, January 2017

President's Message



Dear KOTAA members,

Welcome to 2017 KOTAA technical and annual meetings!

I first attended KOTAA meeting early 1990s. I met Professor Wayne Lee (U of Rhode Island) between TRB sessions and he took me to a small group of Korean transportation professionals. After lively chatters and laughters, we moved to a nice Korean restaurant. Since then, KOTAA became my favorite meeting, because I liked the Korean food served at the restaurant that Professor Lee took me after each KOTAA meeting. At that time, I had lived in the middle of endless corn fields of Iowa and beautiful wilderness of Rocky Mountain in Wyoming where a good Korean restaurant had been hard to find. Those people I met were the founders of KOTAA and many of them have moved on to pursue different enjoyments of their life. Now, KOTAA has grown into an important organization contributing to advancement of both Korean and US transportation industry with large number of membership. It was possible only because of many passionate dedicated people KOTAA has had. Unfortunately, I cannot remember them all. So I asked Professor Wayne Lee to help and he graciously agreed and documented "History of KOTAA" which you can find at the end of this newsletter.

The objectives of KOTAA is "to promote relationship and friendship among Korean Transportation Professionals" and "to improve the development of members' consciousness", and "to contribute to the expansion of transportation science and research as well as industrial growth" as stated in its bylaw. One of the proudest activities fitting to the objectives is "KOTAA Travel Grant". I am pleased to report that the total number of this year's awards is a record-breaking 34. It is great to see more and more Korean students in US, Korea, and other parts of world joining KOTAA. Looking back my times at KOTAA, I

have enjoyed not only having good foods but also learning from many good people and becoming a friend to them. If you are new to KOTAA meeting, I urge you to look around and find people who will become your good friends or who will be your respectful mentor.

Our own success in "KOTAA Travel Grant" also presents us a challenge. With the record-breaking number of awards, the total disbursed fund is also increased, surpassing \$5,000 first time this year. Our success in recent years makes me excited. To continue this success, the growth of Travel Grant Endowment is also continued. However, the annual member donation has steadily declined. In 2003, the annual individual member donation was nearly \$3,000. Last several years, it has been near or below \$1,000. To maintain a sustainable Travel Grant Endowment, KOTAA needs more member donations while seeking available external source of financial support. It is the time to step up so that those who cherish KOTAA can continue cherish. Those who has been helped by KOTAA can help so that more future members will be helped.

It has been my honor being a president of KOTAA. I wish you all happy new year and productive meetings.

Sincerely,

Sang Soo Kim, President

KOTAA

As KOTAA recruits more young members, I thought it might be a good idea to document and let new members know how KOTAA began. I asked Professor K. Wayne Lee, one of the founding members of KOTAA, to do this task. Professor Lee graciously accepted my request and provided the following. Sang Soo Kim

KOTAA History at a Glance

By K. Wayne Lee

My first Transportation Research Board (TRB) conference was in January 1979 with graduate students of University of Texas (UT) at Austin. We rent two recreational vehicles (RVs) from Austin, Texas to the TRB Sheraton hotel, and joined UT faculty and other delegates. It was eye-popping experience, and continued participating all annual meetings thereafter. However, I could not meet (and/or identify) any Korean or Korean-American transportation professionals first several years. Fortunately, I met at least three senior transportation professionals in 1980s, i.e., Prof. Robert Bumjung Lee of New York Polytech U and New Jersey Institute of Technology (NJIT), Dr. Junho Byun of Federal Highway Administration (FHWA) and VP Myunghak Sung of Gannett Fleming, Inc. Naturally, we met in the Sheraton hotel (now Marriot) lobby and restaurants in front of the hotel with various topics. I remember some of stories, i.e., how Prof. Robert Lee started his junior faculty life, how he wrote a text book of "Traffic Engineering" with Prof. Pignataro and how he worked for Korea including bus operation management system etc.; How Dr. Byun married to younger sister of one of my classmate, Prof. Uewan Cho of University of Missouri at Columbia, and how meaning to work for US federal government etc; and how VP Sung explored his consulting works in Pennsylvania and the US, etc. Actually, I even visited Dr. Byun's beautiful house with my wife in Columbia, MD. Yes, so far it appears to be a kind of pre-KOTAA or history. Then, I met with one of my best friends, Prof. Myungsoon Chang of Texas A&M University and later Hanyang University, and he joined the above three seniors. Prof. Chang and I did not meet only for the meals in the restaurant but also drinking and lots of talks in my hotel room. We felt that we could have an official gathering mechanism and/or organization, i.e., later KOTAA. Sooner or later, more Korean and Korean-American transportation professionals participated in

TRB conference, e.g., Prof. Kuyungwoo Kang of Hanyang University and Dr. Hosin David Lee of Washington State University later University of Utah. Actually, some of them went the second drink or third one which I could not join that late.

If my memory is correct, the first KOTAA meeting was in January 1990 and we elected Prof. Robert Lee as our founding President. Since we need some financial support at the beginning of any organization, he provided most of them which we really appreciated. Prof. Robert Lee served as President, Dr. Byun as VP and myself as Secretary/Treasurer for 4 years. Then, in 1994 Dr. Byun became the 2nd President, Mr. Sung as VP and myself as Secretary/Treasurer. Since VP Sung could not serve as President due to his personal reason, I became the 3rd President in 1997. I remember that the bylaw was revised, and established a foundation to further the cause of research in the transportation engineering field by providing fellowships to enable students to present scholarly papers at national meetings of transportation engineers, and to promote and encourage student participation in KOTAA and TRB activities. Actually, it was possible because of excellent staff, particularly, Secretary/Treasurer, Ms. Soojung Jung of University of Maryland. Because she was in Washington DC area, we had KOTAA annual meeting and dinner at the Korean-American Scientists and Engineers (KSEA) building, in Vienna, VA. She arranged tour bus from TRB Hotel to KSEA building, and Korean delegates for International Road Federation (IRF) led by Dr. Keunhan Kim were able to make special presentations and interaction with KOTAA members. This may be one of her superior contribution to KOTAA and Korean-American societies. I remember that she was not only excellent in managing KOTAA matters but also was very good in golfing. As a small token of our appreciation, I took her dinners several times and played golf in DC area a couple of times with my personal fund. However, I unfortunately learned that she changed her professional career path other than transportation some years later. We are missing her but wish her best success on whatever she pursues.

Although most senior members including VP Sung suggested leading KOTAA beyond 1998, I insisted for Mr. Sung to become the 4th President and Dr. Hosin Lee as VP in 1999 in accordance with

the Bylaw, i.e., the term of officers would be 2 years. I trust that this will pave the way for the rest of KOTAA. In 2001, Prof. Hosin David Lee of University of Iowa became the 5th President and Prof. Youngsoo Richard Kim of North Carolina State University as VP. The rest of leaders would be as follows:

- 6th 2003-04 Prof. Youngsoo Richard Kim,
North Carolina State Univ.
- 7th 2005 Dr. Seongsoon Yun,
Gannett Fleming, Inc.
- 8th 2006-07 Prof. Byungkyu (Brian) Park,
University of Virginia
- 9th 2008-09 Prof. Eul-Bum (E.B.) Lee,
UC Berkeley and POSTECH
- 10th 2010-11 Prof. Jun-Seok Oh,
Western Michigan University
- 11th 2012-13 Prof. Hak-Chul Shin,
Louisiana State University
- 12th 2014-15 Dr. In-Kyu Lim,
Virginia DOT
- 13th 2016-17 Prof. Sang Soo Kim,
Ohio University

Since I agree with the request from the 13th KOTAA President, Prof. Sang Soo Kim, I drafted this history quickly. Since more and more of new young members are joining KOTAA, this may help KOTAA for the long-term sustainability. If there is any error, please feel to contact me, and we will revise it accordingly. Thank you and wish you a productive and prosperous New Year!

Kang-Won Wayne Lee, Ph.D., P.E., F. ASCE

President of Korean-American University Professors
Association (KAUPA)
Professor of Civil & Environmental Engineering
Director of Rhode Island Transportation Research
Center (RITRC),
The University of Rhode Island
Kingston, RI 02881, USA

2017 KOTAA Technical Session

Date/Time: January 8, 2017 5:00PM - 6:30 PM

Location: Convention Center, 152A

2017 KOTAA Annual Meeting

Date/Time: January 8, 2017 6:30PM - 8:00 PM

Location: Convention Center, 152A

2017 KOTAA Annual Banquet

Date/Time: January 8, 2017 8:00PM - 9:45 PM

Location: Haad Thai Restaurant,
1100 New York Avenue, Washington, DC 20005



2016 KOTAA TRB Participant Status

A total of 82 KOTAA members attended at the 27th KOTAA Annual Meeting in January, 2016.

Status	U.S.	Korea	Others*	Total
Professional	14	10	11	35
Student	30	10	7	47
Total	44	20	18	82
Status	U.S.	Korea	Others	Total
Professional	17%	12%	13%	43%
Student	37%	12%	9%	57%
Total	76%	24%		100%

* Includes Australia, Canada, Germany, Hong Kong, Netherlands and unknown

2016 KOTAA Meeting Summary

Membership dues:

Professional (\$35/year), Student (\$15/year)

2016 KOTAA Membership Fee Report

	\$0	\$ 15	\$ 35	Total
Professional	0	0	35	35
Graduate	0	44	0	44
Undergraduate	3	0	0	3
Total amount		\$ 660	\$ 1,225	\$ 1,885

2016 Travel Grant Expense Summary

Award	Number	Total
Travel Grant	30	\$ 4,500.00

KOTAA Financial Status

1. General Financial Status

Fiscal Year of 2016

Revenue	17,015.34
Balance from FY 2015	15,130.34*
2016 Membership	1,885.00
Expense	-4,376.77
2016 Newsletter	-82.47
Web Server Renew	-209.00
Domain Renew for 4 years	-691.29
Bank Service Fee	-224.15
CPA, Tax filing from y2012-16	-500.00
Maryland Registration Fee	-269.86
Annual Meeting at TRB 2016	-2,400.00
Balance as of 12/31/16	12,638.57

*Adjusted to reconcile with bank statements

2. Travel Grant Financial Status

Fiscal Year of 2016

Revenue	35,511.34
Balance from FY2016	30,509.28
Revenue from CDs & Mutual Fund	1,959.91
Donations from Members	817.15
Donations from Institutions	2,225.00
Expense	-4,869.51
2016 Travel Grant (30 people)	-4,500.00
Lodging (West coast awardees)	-369.51

Balance as of 12/31/16	30,641.83
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To enhance KOTAA's financial status, KOTAA continued to invest in CDs and Mutual Fund through 2016, based on the decision made by staffs. Following tables summarize the status of the investment in mutual fund in 2016.

2.1 Earning from the Investment

(1)	Dividend from the Mutual Fund	\$ 868.11
(2)	Credit interest	\$ 3.15
(3)	Earning from the Mutual Fund	\$ 1,091.80
Total		\$ 1,963.06

(1) Dividend from the mutual fund (see Table 2.1.1)

(2) Annual credit interest (which obtained from the rest of money outside the investment)

(3) Earning from the mutual fund (Table 2.1.2)

2.1.1 Monthly Dividend from the Mutual Fund

Month/Year	Monthly Dividend
01/2016	\$72.34
02/2016	\$72.33
03/2016	\$72.34
04/2016	\$72.34
05/2016	\$72.34
06/2016	\$72.34
07/2016	\$72.35
08/2016	\$72.35
09/2016	\$72.34
10/2016	\$72.35
11/2016	\$72.34
12/2016	\$72.35
Total	\$868.11

2.1.2 Earning from the Mutual Fund Investment

Month/Date/Year	Mutual Fund Price
12/31/2015	\$ 7,897.00 (= \$ 7.45 × 1,060)
12/31/2016	\$ 8,988.80 (= \$ 8.48 × 1,060)
Total Earning	+\$ 1,091.80 (= \$ 8,988.80 - \$ 7,897.00)

Note: As of 12/31/2016, we have 1,060 shares of a mutual fund with a unit price of \$8.48.

Donations to KOTAA in 2016

Donations from Institutions

Donation Level	Institution	Donation
Diamond	KSEA ¹	\$ 2,225.00
Total		\$ 2,225.00

1. Korean-American Scientists and Engineer Association

Donations from Members

Donation Level	Name		Donation
	Last	First	
Platinum	Kim	Sang-Soo	\$ 369.51
	Park	Byungkyu Brian	\$ 165.00
	Kim	Yong-Rak	\$ 100.00
Gold	Lim	In-kyu	\$ 97.64
	Kwon	Eil	\$ 65.00
Others	-		\$ 20.00
Total			\$ 817.15

Note: Only Members with donations more than \$50 are presented on the table.

KOTAA Travel Grant

Beginning from year 2002, KOTAA has awarded Travel Grant to Korean graduate students attending the TRB meeting from all over the world. Through this grant, KOTAA wishes to encourage Korean students for their study as well as to enhance technical understanding and relationships for their future career development. The students shown in the following are the year 2017 KOTAA Travel Grant recipients. Prizes of \$150 are presented in the 2017 KOTAA Annual Meeting.

2017 KOTAA Travel Grant Recipients

Excellent Researcher Award

- Hyun Woong Cho**, Georgia Institute of Technology:
Combined Variable Speed Limits and Ramp-Metering System for Capacity Drop Control at Merge Bottleneck
- Yong Shin Park**, North Dakota State University:
An Integrated Multimodal Transportation Model for a Switch Grass-Based Bioethanol Supply Chain Case Study in North Dakota;
- Ho-Chul Park**, Seoul National University:
Development of Cross-Classified Multilevel Models to Screen Factors Associated with Fatal and Injury Commercial Motor Vehicle Crashes
- Hyoshin Park**, University of Massachusetts Amherst:
Modeling Effects of Forward Glance Durations on Latent Hazard Detection;
Optimal Relocation of Portable Traffic Sensors to Improve Arterial Mobility
- Bumsik Kim**, University of Utah:

- Initial Assessment of Benefits and Costs of Connected and Automated Vehicles (CAVs) in Texas;
Rearranging a Zone of Public Services by using Vehicle Navigation Data
- 6 **Youngmin Choi**, New Jersey Institute of Technology:
Optimization of Multi-Package Drone Deliveries Considering Battery Capacity
- 7 **Daejin Kim**, Georgia Institute of Technology:
Energy Consumption and Emission Modeling of Individual Vehicles Using MOVES-Matrix
- 8 **Hyeonmi Kim**, University of Maryland:
Stabilizing Bus Headways by Minimizing Bus Travel Time Variance Along an Arterial;
Empirical observations of Merging Behavior at an Arterial Lane Drop
- 9 **Dongyoon Song**, Purdue University:
Psychological Effects of Real-Time Travel Information on Traveler Route Choice Decision-Making Process
- 10 **Hyeonsup Lim**, University of Tennessee, Knoxville:
Incorporating Information Complexity into Regression-based Freight Generation Model Selection;
A Gravity Model using Spatial Correlation of Time Series Data for Freight Distribution Estimation
- 11 **Eun Hak Lee**, Seoul National University:
Efficiency Assessment of Transit Transfer Stations using Data Envelopment Analysis Model based on Smart Card Data
- 12 **Yujin Park**, The Ohio State University:
Factors Affecting Bicycle Commuting: The Role of Individual Attitudes and Neighborhood Environments
- 13 **Dahae Kim**, North Carolina state University:
Permanent Deformation Characterization of Asphalt Mixtures Using Minimum Strain Rate, LVECD Program, and Triaxial Stress Sweep Test
- 14 **Sangwon Yoon**, Seoul National University:
Effect of Regional Characteristics on Crash Injury Severity of Local Buses Using a Hierarchical Ordered Model
- 15 **Kangjin Lee**, North Carolina state University:
Evaluation of Small Specimen Geometries for Asphalt Mixture Performance Testing and Pavement Performance Prediction
- 16 **Sunghoon Jang**, Eindhoven University of Technology:
Allowing for Perceptual Attribute Indifferences in Random Regret Choice Models Using Deterministic and Stochastic Thresholds;
Incorporating Rejoice in Random Regret Choice Models: Specification and Performance Assessment in Context of Travel Mode Choices
- 17 **Bumjoon Bae**, University of Tennessee, Knoxville:
A Gray Zone in Isolated Intersection Control Type Selection
- 18 **Kyungwon Kang**, Virginia Tech:
A Game Theoretical Approach to Model Decision Making for Merging Maneuvers at Freeway On-ramps
- 19 **Kyung Hyun**, University of California, Irvine:
A Sensor Location Decision Model for Truck Flow Measurement
- 20 **Kyungsoo Jeong**, University of California, Irvine:
Local Container Truck Routing Problem with its Operational Flexibility
- 21 **Shinhye Joo**, Hanyang University:
Assessing the Impact of Traffic Crashes on Near Freeway Air Quality
- 22 **Daisik Nam**, University of California, Irvine:
Providing Alternative Travel Options with Data & Model Driven Incentive Schemes for Smart Urban Mobility
- 23 **WhoBin Chung**, University of Central Florida:
The Viability of Land-based Weather Station Data on Highways National-level and Region-level Analyses
- 24 **Yeong-Beom Kwon**, Seoul National University:
Personal Carbon Trading and Equilibrium Permit Price for Road Transportation
- 25 **Seongah Hong**, University of Virginia:
Development and Evaluation of Speed Harmonization using Optimal Control Theory: Simulation-based case study at a speed reduction zone;
Optimization of Multimodal Network System for Environmental Sustainability incorporating Economies of Scale
- 26 **Choungryeol Lee**, Purdue University:
Less-than-truckload (LTL) carrier-to-carrier collaboration under uncertainty: A real options approach
- 27 **Dong-Joon Woo**, Seoul National University:
Investigating the Characteristics of Carsharing Usage Pattern for Public Rental Housing Complexes
- 28 **Lian Cui**, University of Virginia:

Assessing Eco-Driving Behaviors using Driving Simulator

- 29 **Kwanpyo Ko**, North Carolina state University:
On the link between traffic-based indices and near-road air quality
- 30 **Hyunjin Park**, Hanyang University:
Proactive Identification of Hazardous Traffic Conditions Caused by Reduced Visibility using Road Weather Information
- 31 **Sung Yoon Park**, University of Maryland:
Integration of Dilemma Zone Protection with Speed Harmonization at High Speed Suburban Intersections
- 32 **Jiho Yeo**, KAIST:
Observation and Experiment of Driving Behaviors near Speed Humps and Speed Tables
- 33 **Youngeun Bae**, University of California, Irvine:
KOTAA Secretary
- 34 **Minha Lee**, University of Maryland:
KOTAA Secretary

Each grant recipient is asked to collect potential KOTAA member information and news in his/her areas and provide them to the KOTAA secretary.

Member News

Activities

- Prof. Yong-Rak Kim has been promoted to full professor at the University of Nebraska-Lincoln

Join in KSEA

KSEA (Korean-American Scientists and Engineers Association) was established in 1971 to help Korean-American Scientists and Engineers develop their full career potential. KOTAA, as an affiliation of KSEA, encourages its members to join in KSEA. Please refer to www.ksea.org.

Let's Use KOTAA Website!!!

Please visit the KOTAA website (www.kotaa.org). Any ideas to improve the website or postings of useful information are very welcome any time. If you are interested in managing any part of the web contents, please feel free to contact the secretary (minhalee@umd.edu) or (secretary@kotaa.org).

[Linkedin.com](https://www.linkedin.com) is an on-line professional network. In addition to KOTAA website, [Linkedin.com](https://www.linkedin.com) will play a

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role to connect us and share information. Please visit the website and add you and invite people to connect.

Current Officers

President

Sang-Soo Kim (Ohio University)

Vice-Presidents

Seri Park (Villanova University)

Yong-Rak Kim (University of Nebraska)

Auditor

BooHyun Nam (University of Central Florida)

Hyungjun Park (University of Virginia)

General Secretary

Minha Lee (University of Maryland)

Youngeun Bae (University of California, Irvine)

Webmaster

We are looking for our new webmaster!

Send any comments or suggestions to general secretary, **Youngeun Bae**, at secretary@kotaa.org regarding any issues for operating KOTAA.

NOTE